

REMARKS

Claims 1-11 are pending and under consideration in the above-identified application.

Claims 12-20 stand withdrawn from consideration.

In the Office Action of January 8, 2008, claims 1-11 were rejected.

With this Amendment, claims 1 and 4 are amended. Accordingly, claims 1-11 remain at issue.

I. 35 U.S.C. § 102 Anticipation Rejection of Claims

Claims 1-4, 6-7 and 11 were rejected under 35 U.S.C. § 102(c) as being anticipated by *Inagaki* (U.S. 6,765,246) (“*Inagaki*”). Applicant respectfully traverses this rejection.

In relevant part, independent claim 1 now recites:

“an impurity region continuously formed in the semiconductor region in a direction orthogonal to the transfer direction of said transfer register.”

This is clearly unlike *Inagaki*, which fails to disclose an impurity region continuously formed in a direction orthogonal to the transfer direction of a transfer register. Instead, *Inagaki* discloses a impurity region 13 which is parallel to the transfer direction of the transfer region 14. See, U.S. Pat. No. 6,765,246, Col. 6, l. 39-52; Fig. 2 & 3.

As the Applicant’s specification teaches, by providing an impurity region formed continuously in a direction orthogonal to the transfer direction of said transfer register, a sufficient potential barrier can be formed between the photo-sensors adjacent to each other preventing the vertical mixing of signals. See, U.S. Pat. Pub. 2006/0163619 Para. [0032]. Because the apparatus disclosed in *Inagaki* lacks this feature, it is incapable of producing the desired effect.

Therefore, because *Inagaki* fails to disclose, or even fairly suggest, every feature of claims 11-4, 6-7 and 11, the rejection is improper.

II. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 5 and 8-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Inagaki* in view of *Komatsu* (JP 02002231924) ("*Komatsu*"). Applicant respectfully traverses this rejection.

Claim 1 is allowable over *Inagaki* as discussed previously.

Komatsu, similarly, fails to disclose anything pertaining to an impurity region continuously formed in a direction orthogonal to the transfer direction of a transfer register.

Therefore, because *Inagaki*, *Komatsu*, and any combination of them fails to disclose or even fairly suggest every feature of claim 1, the rejection cannot stand. Because claims 5 and 8-10 depend, either directly or indirectly, from claim 1, they are allowable for at least the same reasons.

III. Conclusion

In view of the above amendments and remarks, Applicant submits that all claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

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